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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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TULSA, OK 74103

EXAMINER	
TRAN, THUY V	

ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/713,290	DULANEY ET AL.	
	Examiner	Art Unit	
	Thuy V. Tran	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *amendment submitted 12/27/2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5 and 7-33* is/are rejected.

7)☒ Claim(s) *2* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This is a response to the Applicants' amendment submitted on 12/27/2005. In virtue of this amendment, claim 6 has been canceled; and thus, claims 1-5 and 7-33 are now presented in the instant application.

Double Patenting Rejections

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 30 and 33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 14 and 20-22 of U.S. Patent No. 6,650,067. Although the conflicting claims are not identical, they are not patentably distinct from each other because (i) the two groups of claims are directed to a common subject matter, and (ii) the function of varying an operating parameter of the programmable processor is considerably included in the function of controlling operation of the electronic ballast of the programmable processor, which would have been obviously within the recognition of a person skilled in the art.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3-5, 7-10, 14-19, 23-30, and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldeira et al. (U.S. Patent No. 5,623,187).

With respect to claim 1, Caldeira et al. discloses, in Figs. 13-17, an electronic ballast for supplying electrical excitation to a filamentless discharge lamp [50] (see col. 1, lines 25-25-26); the electronic ballast comprises (1) power conditioning circuitry [10, 20] for conditioning electrical power received from a source of electrical power (see Fig. 13), and producing a conditioned power signal [DC]; and (2) a lamp supply circuit [30, control A, control B, control C, control D] for receiving the conditioned power signal and producing electrical signals to operate the filamentless discharge lamp [50]; said lamp supply circuit includes (i) a programmable processor [100] (see col. 21, lines 38-41) operable to vary an operating parameter (see col. 21, lines 48-53) of the lamp supply circuit to enable operation of a plurality of lamp types or sizes (see Abstract, lines 13-17), (ii) an ignition circuit [40] (see col. 17, line 45) for producing an oscillating voltage signal for igniting the discharge lamp [50], and (iii) a sustaining circuit [control D] (see Fig. 14) for producing an oscillating current signal to sustain ignition of the discharge lamp [50]. Caldeira et al. further teaches an operating frequency range of 20-25 KHz to avoid strong acoustic resonances (see col. 18, lines 12-15) but does not explicitly teach that the programmable processor is further operable to oscillate the lamp supply circuit at 60 KHz or greater to avoid acoustic distortion and strobbing of the discharge lamp. However, Caldeira et al. suggests that the control is applicable for all frequency ranges, basically from 0 Hz

to several MHz and with no perceived upper limit (see col. 23, lines 13-15). For such suggestion, it is believed that acoustic resonances distortion and strobbing of the discharge lamp would be increasingly avoided. Accordingly, to operate the programmable processor of Caldeira et al. at a frequency of 60 KHz or greater, which is within the range suggested by Caldeira et al., would have been deemed obvious to a person skilled in the art.

With respect to claim 3, Caldeira et al. discloses that the programmable processor [100] is further operable to produce an oscillating processor signal for use in oscillating the supply circuit at a plurality of frequencies to operate discharge lamps of different types or sizes (see col. 21, lines 55-63).

With respect to claims 4-5, Caldeira et al. discloses, in Figs. 13-14 and col. 16, line 22 – col. 23, line 3, that the programmable processor [100] oscillates (via oscillator [63]; see Fig. 14) the lamp supply circuit during and after ignition of the discharge lamp [50].

With respect to claim 7, Fig. 14 of Caldeira et al. shows that the sustaining circuit is inductorless (the two circuits [60, 70] are voltage/current monitors excluded from the sustaining circuit [control D]).

With respect to claim 8, Caldeira et al. discloses, in Figs. 13-14, that the electronic ballast further comprises (1) a switch [Q2, Q3] having a conductive state and a nonconductive state, and (2) a driver [control B] for switching the switch between its conductive and nonconductive states based on an oscillating processor signal (see Fig. 14), thereby producing the oscillating current signal.

With respect to claim 9, Caldeira et al. discloses, in Figs. 13-17, that the electronic ballast further comprises a converter [105] (see Fig. 17) for converting an oscillating processor signal to

analog format, and producing an analog oscillating signal, and an amplifier [67] (see Fig. 14) for amplifying the analog oscillating signal and producing said oscillating current signal.

With respect to claim 10, Caldeira et al. discloses that the power conditioning circuitry [10, 20] includes a filter circuit for removing noise from electrical power provided by the electrical power source, a power factor correction circuit for adjusting the power factor of the filtered power signal to produce a corrected power signal, and a power supply circuit for converting electrical power received from the filtered power signal to a power level sufficient to operate the electronic ballast (see col. 16, line 58 – col. 17, line 19).

With respect to claim 14, Caldeira et al. discloses that the electronic ballast further comprises a voltage monitor [60] (see Fig. 14) for monitoring the electrical signals provided to the discharge lamp [50], and producing a voltage monitor signal corresponding to the electrical signals sensed by the voltage monitor [60].

With respect to claim 15, Caldeira et al. discloses, in Figs. 13-17, that the programmable processor is further operable to control an oscillating processor signal based on the voltage monitor signal.

With respect to claim 16, Caldeira et al. discloses that the electronic ballast further comprises a current monitor [70] (see Fig. 14) for monitoring the electrical signals provided to the discharge lamp [50], and producing a current monitor signal corresponding to the electrical signals sensed by the current monitor [70].

With respect to claim 17, Caldeira et al. discloses, in Figs. 13-17, that the programmable processor is further operable to control an oscillating processor signal based on the current monitor signal.

With respect to claim 18, Caldeira et al. discloses, in Figs. 13-17, an electronic ballast for supplying electrical excitation to a filamentless discharge lamp [50] (see col. 1, lines 25-25-26); the electronic ballast comprises (1) power conditioning circuitry [10, 20] for conditioning electrical power received from a source of electrical power (see Fig. 13), and producing a conditioned power signal [DC], and (2) a lamp supply circuit [30, control A, control B, control C, control D] for receiving the conditioned power signal and producing electrical signals to operate the filamentless discharge lamp [50]; said lamp supply circuit includes (i) a programmable processor [100] (see col. 21, lines 38-41) programmed to produce an oscillating processor signal for use in oscillating the supply circuit at a plurality of frequencies to operate discharge lamps of different types or sizes (see col. 21, lines 48-53; Abstract, lines 13-17), (ii) an ignition circuit [40] (see col. 17, line 45) for receiving an oscillating processor signal and producing an oscillating voltage signal for igniting the discharge lamp [50], and (iii) a sustaining circuit [control D] (see Fig. 14) for receiving an oscillating processor signal and producing an oscillating current signal to sustain ignition of the discharge lamp [50]. Caldeira et al. further teaches an operating frequency range of 20-25 KHz to avoid strong acoustic resonances (see col. 18, lines 12-15) but does not explicitly teach that the programmable processor is for use in oscillating the supply circuit at a plurality of frequencies of 60 KHz or greater to enable the lamp supply circuit to operate the discharge lamps of different types or sizes without acoustic distortion and strobbing. However, Caldeira et al. suggests that the control is applicable for all frequency ranges, basically from 0 Hz to several MHz and with no perceived upper limit (see col. 23, lines 13-15). For such suggestion, it is believed that acoustic resonances distortion and strobbing of the discharge lamp would be increasingly avoided. Accordingly, to operate the

programmable processor of Caldeira et al. at a frequency of 60 KHz or greater, which is within the range suggested by Caldeira et al., would have been deemed obvious to a person skilled in the art.

With respect to claim 19, Caldeira et al. discloses that the power conditioning circuitry [10, 20] includes a filter circuit for removing noise from electrical power provided by the electrical power source and producing a filtered power signal, a power factor correction circuit for adjusting the power factor of the filtered power signal to produce a corrected power signal, and a power supply circuit for converting electrical power received from the filtered power signal to a power level sufficient to operate the electronic ballast (see col. 16, line 58 – col. 17, line 19).

With respect to claim 23, Caldeira et al. discloses that the electronic ballast further comprises a voltage monitor [60] (see Fig. 14) for monitoring the electrical signals provided to the discharge lamp [50], and producing a voltage monitor signal corresponding to the electrical signals sensed by the voltage monitor [60].

With respect to claim 24, Caldeira et al. discloses, in Figs. 13-17, that the programmable processor is further operable to control an oscillating processor signal based on the voltage monitor signal.

With respect to claim 25, Caldeira et al. discloses that the electronic ballast further comprises a current monitor [70] (see Fig. 14) for monitoring the electrical signals provided to the discharge lamp [50], and producing a current monitor signal corresponding to the electrical signals sensed by the current monitor [70].

With respect to claim 26, Caldeira et al. discloses, in Figs. 13-17, that the programmable processor is further operable to control an oscillating processor signal based on the current monitor signal.

With respect to claim 27, Fig. 14 of Caldeira et al. shows that the sustaining circuit is inductorless (the two circuits [60, 70] are voltage/current monitors excluded from the sustaining circuit [control D]).

With respect to claim 28, Caldeira et al. discloses, in Figs. 13-17, an electronic ballast for supplying electrical excitation to a filamentless discharge lamp [50] (see col. 1, lines 25-25-26); the electronic ballast comprises (1) power conditioning circuitry [10, 20] for conditioning electrical power received from a source of electrical power (see Fig. 13), and producing a conditioned power signal [DC], and (2) a lamp supply circuit [30, control A, control B, control C, control D] for receiving the conditioned power signal and producing electrical signals to ignite and sustain ignition of the filamentless discharge lamp [50]; said lamp supply circuit includes (i) a programmable processor [100] (see col. 21, lines 38-41) programmed to produce an oscillating processor signal for use in oscillating the supply circuit at a plurality of frequencies to operate discharge lamps of different types or sizes (see col. 21, lines 48-53; Abstract, lines 13-17), and (ii) an inductorless sustaining circuit (the two circuits [60, 70] are voltage/current monitors excluded from the sustaining circuit [control D]) for receiving the oscillating processor signal and producing an oscillating current signal for operating the discharge lamp [50] after ignition. Caldeira et al. further teaches an operating frequency range of 20-25 KHz to avoid strong acoustic resonances (see col. 18, lines 12-15) but does not explicitly teach that the programmable processor is for use in oscillating the supply circuit at a plurality of frequencies of

60 KHz or greater to enable the lamp supply circuit to operate the discharge lamps of different types or sizes without acoustic distortion and strobbing. However, Caldeira et al. suggests that the control is applicable for all frequency ranges, basically from 0 Hz to several MHz and with no perceived upper limit (see col. 23, lines 13-15). For such suggestion, it is believed that acoustic resonances distortion and strobbing of the discharge lamp would be increasingly avoided. Accordingly, to operate the programmable processor of Caldeira et al. at a frequency of 60 KHz or greater, which is within the range suggested by Caldeira et al., would have been deemed obvious to a person skilled in the art.

With respect to claim 29, Caldeira et al. discloses, in Figs. 13-17, an electronic ballast for supplying electrical excitation to a filamentless discharge lamp [50] (see col. 1, lines 25-25-26); the electronic ballast comprises (1) power conditioning circuitry [10, 20] for conditioning electrical power received from a source of electrical power (see Fig. 13), and producing a conditioned power signal [DC], and (2) a lamp supply circuit [30, control A, control B, control C, control D] for receiving the conditioned power signal and producing electrical signals to operate the filamentless discharge lamp [50]; said lamp supply circuit includes a programmable processor [100] (see col. 21, lines 38-41) programmed to produce an oscillating processor signal for use in oscillating the supply circuit at a plurality of frequencies (see col. 21, lines 48-53). Caldeira et al. further teaches an operating frequency range of 20-25 KHz to avoid strong acoustic resonances (see col. 18, lines 12-15) but does not explicitly teach that the programmable processor is for use in oscillating the supply circuit at a plurality of frequencies of 60 KHz or greater to enable the lamp supply circuit to operate the discharge lamps of different types or sizes without acoustic distortion and strobbing. However, Caldeira et al. suggests that the control is

applicable for all frequency ranges, basically from 0 Hz to several MHz and with no perceived upper limit (see col. 23, lines 13-15). For such suggestion, it is believed that acoustic resonances distortion and strobbing of the discharge lamp would be increasingly avoided. Accordingly, to operate the programmable processor of Caldeira et al. at a frequency of 60 KHz or greater, which is within the range suggested by Caldeira et al., would have been deemed obvious to a person skilled in the art.

With respect to claim 30, Caldeira et al. discloses, in Figs. 13-17, an electronic ballast for supplying electrical excitation to a filamentless discharge lamp [50] (see col. 1, lines 25-25-26); the electronic ballast comprises (1) power conditioning circuitry [10, 20] for conditioning electrical power received from a source of electrical power (see Fig. 13), and producing a conditioned power signal [DC]; said power conditioning circuitry [10, 20] includes a filter circuit for removing noise from electrical power provided by the electrical power source and producing a filtered power signal, a power factor correction circuit for adjusting the power factor of the filtered power signal to produce a corrected power signal, and a power supply circuit for converting electrical power received from the filtered power signal to a power level sufficient to operate the electronic ballast (see col. 16, line 58 – col. 17, line 19), and (2) a lamp supply circuit [30, control A, control B, control C, control D] for receiving the conditioned power signal and producing electrical signals to operate the filamentless discharge lamp [50]; said lamp supply circuit includes a programmable processor [100] (see col. 21, lines 38-41) operable to vary an operating parameter of the lamp supply circuit to enable operation of a plurality of lamp types or sizes (see col. 21, lines 48-53; Abstract, lines 13-17). Caldeira et al. further teaches an operating frequency range of 20-25 KHz to avoid strong acoustic resonances (see col. 18, lines 12-15) but

does not explicitly teach that the programmable processor is further operable to oscillate the lamp supply circuit at 60 KHz or greater to avoid acoustic distortion and strobbing of the discharge lamp. However, Caldeira et al. suggests that the control is applicable for all frequency ranges, basically from 0 Hz to several MHz and with no perceived upper limit (see col. 23, lines 13-15). For such suggestion, it is believed that acoustic resonances distortion and strobbing of the discharge lamp would be increasingly avoided. Accordingly, to operate the programmable processor of Caldeira et al. at a frequency of 60 KHz or greater, which is within the range suggested by Caldeira et al., would have been deemed obvious to a person skilled in the art.

With respect to claim 32, Caldeira et al. discloses, in Figs. 13-17, an electronic ballast for supplying electrical excitation to a filamentless discharge lamp [50]; the electronic ballast comprises (1) power conditioning circuitry [10, 20] for conditioning electrical power received from a source of electrical power (see Fig. 13), and producing a conditioned power signal (which is DC; see Fig. 13), (2) a lamp supply circuit [30] for receiving the conditioned power signal and producing electrical signals to operate the filamentless discharge lamp [50]; said lamp supply circuit includes a programmable processor [100] (which is configured in control C; see col. 21, lines 38-41) operable to vary an operating parameter (which is operating frequency of the inverter; see col. 21, lines 49-53) of the lamp supply circuit to enable operation of a plurality of lamp types or sizes (see Abstract, lines 13-17), and (3) a voltage monitor [60] (see Fig. 14) for monitoring the electrical signals provided to the discharge lamp [50] and producing a voltage monitor signal corresponding to the electrical signals sensed by the voltage monitor. Caldeira et al. further teaches an operating frequency range of 20-25 KHz to avoid strong acoustic resonances (see col. 18, lines 12-15) but does not explicitly teach that the programmable

processor is further operable to oscillate the lamp supply circuit at 60 KHz or greater to avoid acoustic distortion and strobbing of the discharge lamp. However, Caldeira et al. suggests that the control is applicable for all frequency ranges, basically from 0 Hz to several MHz and with no perceived upper limit (see col. 23, lines 13-15). For such suggestion, it is believed that acoustic resonances distortion and strobbing of the discharge lamp would be increasingly avoided. Accordingly, to operate the programmable processor of Caldeira et al. at a frequency of 60 KHz or greater, which is within the range suggested by Caldeira et al., would have been deemed obvious to a person skilled in the art.

With respect to claim 33, Caldeira et al. discloses, in Figs. 13-17, an electronic ballast for supplying electrical excitation to a filamentless discharge lamp [50]; the electronic ballast comprises (1) power conditioning circuitry [10, 20] for conditioning electrical power received from a source of electrical power (see Fig. 13), and producing a conditioned power signal (which is DC; see Fig. 13), (2) a lamp supply circuit [30] for receiving the conditioned power signal and producing electrical signals to operate the filamentless discharge lamp [50]; said lamp supply circuit includes a programmable processor [100] (which is configured in control C; see col. 21, lines 38-41) operable to vary an operating parameter (which is operating frequency of the inverter; see col. 21, lines 49-53) of the lamp supply circuit to enable operation of a plurality of lamp types or sizes (see Abstract, lines 13-17), and (3) a current monitor [70] (see Fig. 14) for monitoring the electrical signals provided to the discharge lamp [50] and producing a voltage monitor signal corresponding to the electrical signals sensed by the voltage monitor. Caldeira et al. further teaches an operating frequency range of 20-25 KHz to avoid strong acoustic resonances (see col. 18, lines 12-15) but does not explicitly teach that the programmable

processor is further operable to oscillate the lamp supply circuit at 60 KHz or greater to avoid acoustic distortion and strobbing of the discharge lamp. However, Caldeira et al. suggests that the control is applicable for all frequency ranges, basically from 0 Hz to several MHz and with no perceived upper limit (see col. 23, lines 13-15). For such suggestion, it is believed that acoustic resonances distortion and strobbing of the discharge lamp would be increasingly avoided. Accordingly, to operate the programmable processor of Caldeira et al. at a frequency of 60 KHz or greater, which is within the range suggested by Caldeira et al., would have been deemed obvious to a person skilled in the art.

5. Claims 11-13, 20-22, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldeira et al. (U.S. Patent No. 5,623,187) in view of Bogdan (U.S. Patent No. 6,040,661).

With respect to claims 11-13, 20-22, and 31, Caldeira et al. obviously discloses all of the claimed subject matter, as expressly recited in claims 1 and 18-19, except that the ballast of Caldeira et al. does not have a communicating port for communicating with the programmable processor from a peripheral device, which is a computer or a digital communication network.

Bogdan discloses, in Fig. 7, an electronic ballast comprising a communication port [127] for communicating with a programmable processor [128] from a peripheral device, which is a computer [126] or digital communication network.

It would have been obvious to one of ordinary skills in the art at the time of the invention to modify the electronic ballast of Caldeira et al. by additionally configuring a communication port therein so as to be able to connect the programmable processor to a computer or digital communication network for a remote operation control since such an arrangement of the port for

communicating with the computer or digital communication network for the stated purpose has been well known in the art as evidenced by the teachings of Bogdan (see col. 7, lines 53-56).

Allowable Subject Matter

6. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to disclose or fairly suggest an electronic ballast for supplying electrical excitation to a discharge lamp further comprising a programmable inductor circuit having a plurality of inductance values, wherein said programmable processor is operable to select one of said plurality of inductance values for operation of a particular lamp type or size, in combination with the remaining claimed limitations as called for in claim 2.

Remarks and conclusion

8. Applicants' arguments with respect to amended claims 1, 3-5, 7-10, 14-19, 23-30, and 32-33 have been considered but are moot in view of the new ground(s) of rejection.

In regard to Applicants' arguments on amended independent claims 1, 30, and 32-33 at pages 13-16 with respect to the teachings of the cited reference to Caldeira et al., it is noted that (i) Caldeira et al. clearly discloses a programmable processor operable to vary an operating parameter of the lamp supply circuit to enable operation of a plurality of lamp types or sizes (see Abstract, lines 13-17; col. 21, lines 34-63; col. 22, lines 55-66), (ii) Caldeira et al.'s does function to allow the ballast to operate lamps of different types (see Abstract, lines 13-15), and (iii) Caldeira et al.'s does not explicitly teach an operating frequency of 60 KHz or greater, but

insists that the control can be applicable for all or a great frequency range(s) from 0Hz to several MHz (see col. 23, lines 13-15). As such, to operate the inventions of claims 1, 30, 32, 33 and those of their dependent claims 3-5, 7-10, and 14-17 at an operating frequency of 60 KHz or greater to increasingly avoid acoustic resonances and strobbing of the lamp would have been deemed obvious to a person skilled in the art.

In regard to Applicants' arguments on amended independent claims 18, 28, and 29 at pages 16-17 with respect to the teachings of the cited reference to Caldeira et al., it is noted that (i) Caldeira et al. clearly discloses a sustaining circuit, which is CONTROL D shown in Fig. 14 (the two parts referenced [60, 70] are not included therein), which is not configured with inductor (or inductorless as claimed), and (ii) Caldeira et al.'s does not explicitly teach an operating frequency of 60 KHz or greater, but insists that the control can be applicable for all or a great frequency range(s) from 0Hz to several MHz (see col. 23, lines 13-15). As such, to operate the inventions of claims 18, 28, 29 and those of their dependent claims 19 and 23-27 at an operating frequency of 60 KHz or greater to increasingly avoid acoustic resonances and strobbing of the lamp would have been deemed obvious to a person skilled in the art.

Applicants' arguments with respect to the rejections of claims 29 and 31 at pages 17-18 under 35 U.S.C. 102(b) as being anticipated by Bogdan have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground of rejection to claim 31 is made in view of the teachings of the combination of Caldeira et al. and Bogdan.

In response to Applicants' arguments on the rejections of claims 11-13 and 20-22 at pages 18-20 that there is no suggestion to combine the references, the examiner recognizes that

obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, to additionally configure a communication port to the programmable processor of Cladeira et al. so as to be able to connect the programmable processor to a computer or digital communication network for a remote operation control would have been deemed as an obvious development to a person skilled in the art since such a practice has been well known in the art as evidence by the teachings of Bogdan.

Conclusively,

- Claims 1, 3-5, 7-10, 14-19, 23-30, and 33 are now rejected as being unpatentable over the teachings of Caldeira et al.;
- Claims 11-13, 20-22, and 31 are now rejected as being unpatentable over the teachings of Caldeira et al. and Bogdan; and
- Claim 2 remains objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Terminal Disclaimer filed December 27, 2005

10. The terminal disclaimer Applicants filed on December 27, 2005 in regard to the double patenting rejections of claims 30 and 33 remains pending until the rejections over art of the other claims are resolved.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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03/08/2006

THUY V. TRAN
PRIMARY EXAMINER